

**REMARKS / ARGUMENTS**

The present application includes pending claims 1-19. Claims 3, 6 and 7 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form. By this Amendment, claims 1-5, 8-9, 11, 14, and 16 have been amended, as set forth above, to further clarify the language used in these claims and to further prosecution of the present application. New claims 20-27 have been entered. The Applicant respectfully submits that the claims define patentable subject matter.

Initially, the Applicant notes that a goal of patent examination is to provide a prompt and complete examination of a patent application.

It is essential that patent applicants obtain a prompt yet complete examination of their applications. Under the principles of compact prosecution, each claim should be reviewed for compliance with every statutory requirement for patentability in the *initial review* of the application, even if one or more claims are found to be deficient with respect to some statutory requirement. Thus, Office personnel *should state all reasons and bases for rejecting claims in the first* Office action. Deficiencies should be explained clearly, particularly when they serve as a basis for a rejection. Whenever practicable, Office personnel should indicate how rejections may be overcome and how problems may be resolved. A failure to follow this approach can lead to unnecessary delays in the prosecution of the application.

See Manual of Patent Examining Procedure (MPEP) § 2106(II). As such, the Applicant assumes, based on the goals of patent examination noted above, that the present Office Action has set forth "all reasons and bases" for rejecting the claims.

Claims 1, 4-5 and 8-9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Publication No2002/0141441, issued to Neumann, et al. (hereinafter, Neumann), in view of U.S. Patent No. 6,594,242, issued to Kransmo, et al. (hereinafter, Kransmo). Claims 2, 10-15 and 17-19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Neumann, in view of Kransmo and further in view of U.S. Patent No. 5,251,220, issued to Schutte (hereinafter, Schutte). Claim 16 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Neumann, in view of Kransmo and further in view of Schutte and still further in view of U.S. Patent No. 6,098,178, issued to Moretti, et al. (hereinafter Moretti) The Applicant respectfully traverses these rejections at least for the reasons previously set forth during prosecution and at least based on the following remarks.

#### **CLAIM REJECTIONS UNDER 35 U.S.C. § 103**

In order for a *prima facie* case of obviousness to be established, the Manual of Patent Examining Procedure ("MPEP") states the following:

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine the teaching. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The

teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure.

See MPEP at § 2142, citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991) (emphasis added). Further, MPEP § 2143.01 states that "the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art suggests the desirability of the combination," and that "although a prior art device 'may be capable of being modified to run the way the apparatus is claimed, there must be a *suggestion or motivation in the reference* to do so'" (citing *In re Mills*, 916 F.2d 680, 16 USPQ 2d 1430 (Fed. Cir. 1990)). Moreover, MPEP § 2143.01 also states that the level of ordinary skill in the art cannot be relied upon to provide the suggestion..., citing *Al-Site Corp. v. VSI Int'l Inc.*, 174 F.3d 1308, 50 USPQ 2d 1161 (Fed. Cir. 1999). Additionally, if a *prima facie* case of obviousness is not established, the Applicant is under no obligation to submit evidence of nonobviousness.

The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness.

See MPEP at § 2142.

**I. The Proposed Combination of Neumann and Kransmo Does Not Render Claims 1, 4-5 and 8-9 Unpatentable**

The Applicant turns to the rejection of claims 1, 4-5 and 8-9 as being unpatentable over Neumann in view of Kransmo.

**A. The Proposed Combination Does Not Teach or Suggest “means for establishing, within said device, timing synchronization between said first and second wireless communications systems on the basis of timing information transferred to said host baseband processor from said baseband co-processor”**

With regard to the rejection of independent claim 1 under 103(a), the Applicant submits that the combination of Neumann and Kransmo does not disclose or suggest at least the limitation of “said host baseband processor enables timing of synchronization between said first and second wireless communications systems on the basis of timing information transferred to said host baseband processor from said baseband co-processor,” as recited by the Applicant in independent claim 1.

Neumann discloses a wireless telephone that includes a first and second baseband processors. The first baseband processor (GSM) functions as a system master, and the second processor (TDMA) functions as a system slave. The first baseband processor interfaces to the system controls, such as power supply, man machine interface (MMI), and the like. See Neuman at Abstract.

With regard to claim 1, the Office Action states the following:

Neumann further teaches establishing, within said device, timing synchronization between the first and the second processors (paragraph 21, note that "The GSM master processor controls audio input/output and an RF front end circuit in both the first and second mode", further note that the GSM master processor and the TDMA co-processor are coupled together providing a synchronous I/O on the GSM master processor side, *hence it is inherent that a timing synchronization exists between the system of GSM master processor and the system of TDMA co-processor* so that the audio Input/Output is controlled by the GSM processor). (emphasis added)

See the Office Action at pages 3-4. The Applicant respectfully disagrees with the above argument. Neumann discloses the following at paragraph 21:

A logic interface unit for voice data during a voice call couples the GSM master processor to the TDMA co-processor, *providing a synchronous I/O on the GSM master processor side, and an asynchronous I/O on the TDMA co-processor side.*

In this regard, Neumann discloses that a **synchronous** I/O is provided on one side of the wireless system (the GSM side), and an **asynchronous** I/O is provided on the other side of the wireless system (the TDMA side). **Neumann does not disclose or suggest that any timing synchronization occurs between the first and second wireless communication systems**, as claimed by the Applicant in claim 1.

Furthermore with regard to synchronization, in paragraph [0027] of Neumann there is disclosed a glue logic interface coupled between the master

processor and the coprocessor. Specifically, paragraph [0027] of Neumann et al states:

The GSM master processor 202 also couples directly and via interface or "glue" logic 208 to the TDMA co-processor 204. In one embodiment of the invention, the glue logic 208 provides various synchronization logic between the GSM master processor 202 and the TDMA co-processor 204 and, in particular, provides an asynchronous serial interface (ASC) to the TDMA co-processor and a synchronous serial interface to the GSM master processor 202.

Neumann merely states that the glue logic block illustrated in FIG. 3 provides various synchronization logic between the GSM master processor and the TDMA processor. In particular, the glue logic block provides an asynchronous serial interface (ASC) to the TDMA processor and a synchronous serial interface to the GSM master processor. There is no other mention of synchronization in Neumann, let alone disclosure of "said host baseband processor enables **timing of synchronization** between said first and second wireless communications systems on the **basis of timing information transferred to said host baseband processor from said baseband co-processor,**" as claimed by the Applicant in claim 1.

The Office Action, at page 3-4, states:

... hence it is inherent that a timing synchronization exists between the system of GSM master processor and the system of TDMA co-processor so that the audio Input/Output is controlled by the GSM processor).

Based on this statement, the Office Action appears to be rejecting Claim 1 based on inherency.

The Applicant submits that a rejection based on inherency must include a statement of the rationale or evidence tending to show inherency. See Manual of Patent Examining Procedure at § 2112.

"The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic."

See *id. citing In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993).

To establish inherency, the extrinsic evidence "must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. **Inherency, however, may not be established by probabilities or possibilities.** The mere fact that a certain thing may result from a given set of circumstances is not sufficient.

*In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999).

The Applicant respectfully submits that neither Neumann itself nor the Office Action "make[s] clear that the missing descriptive matter," said to be inherent "is necessarily present in Neumann.

A rejection based on inherency must be based on factual or technical reasoning:

In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teaching of the applied prior art.

*Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990).

The Applicant respectfully submits that the Office Action does not contain a basis in fact and/or technical reasoning to support the rejection based on inherency. Instead, as recited above, at least claim 1 of the present application stands rejected based on a conclusory statement of inherency, rather than upon a "basis in fact and/or technical reasoning." Accordingly, the Applicant respectfully submits that, absent a "basis in fact and/or technical reasoning" for the rejection of record, that rejection should be reconsidered and withdrawn.

The Office Action concedes on page 4 thereof, that "Neumann does not specifically disclose timing synchronization between the first and second wireless communications systems on the basis of timing information transferred to **said host baseband processor from said baseband co-processor.**" To overcome this deficiency, the Office Action relies on Kransmo.

Kransmo discloses "A method, node and wireless communication terminal for providing handover and roaming from a 3G communication system to a 2G communication system." See Kransmo at Abstract. The Applicant notes that Examiner is specifically relying on Kransmo to teach that **synchronization** between a first and a second wireless communications systems **occurs on the**



**basis of timing information transferred to a host baseband processor from a baseband co-processor.** To support this argument, the Examiner is citing extensively from Kransmo, using Figures 1-3, the Abstract, col. 1, lines 41-44, 50-67, col. 2, lines 1-32, col. 4, lines 10-20, col. 4, lines 30-56, and col. 5, lines 7-21. See the Office Action at page 4. The Applicant has reviewed all of the above citations as well as the remainder of Kransmo, and has been unable to identify where Kransmo discloses that synchronization between a first and a second wireless communications systems occurs on the basis of timing information transferred to a host baseband processor from a baseband co-processor, as claimed by the Applicant in claim 1.

After making the extensive citation from Kransmo, the Examiner states the following:

... Inherently during the roaming process from a 3G system to a 2G system the dual-mobile terminal switches communication operations from a first processor that processes communications of 3G type to a second processor that processes communications of a 2G type so that the call is successfully handed over. Further note that synchronization takes place between the two different systems. In order for this synchronization to take place, the processor processing the 3G communications inherently sends timing information to the processor that processes the 2G communications, thus synchronization between two systems takes place on the basis of timing information transferred from the 3G processor to the 2G processor).

*See id.* Based on this statement, the Examiner appears to be using inherency again to rejecting Claim 1 with regard to the second reference.

The Applicant submits that a rejection based on inherency must include a statement of the rationale or evidence tending to show inherency. *See* Manual of Patent Examining Procedure at § 2112.

"The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic."

*See id. citing In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993).

To establish inherency, the extrinsic evidence "must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. **Inherency, however, may not be established by probabilities or possibilities.** The mere fact that a certain thing may result from a given set of circumstances is not sufficient.

*In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999).

The Applicant respectfully submits that neither Neumann itself nor the Office Action "make[s] clear that the missing descriptive matter," said to be inherent "is necessarily present in Neumann.

A rejection based on inherency must be based on factual or technical reasoning:

In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the

determination that the allegedly inherent characteristic necessarily flows from the teaching of the applied prior art.

*Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990).

The Applicant respectfully submits that the Office Action does not contain a basis in fact and/or technical reasoning to support the rejection based on inherency. Instead, as recited above, at least claim 1 of the present application stands rejected based on a conclusory statement of inherency, rather than upon a "basis in fact and/or technical reasoning." Accordingly, the Applicant respectfully submit that, absent a "basis in fact and/or technical reasoning" for the rejection of record, that rejection should be reconsidered and withdrawn.

Accordingly, the proposed combination of Neumann and Kransmo does not render independent claim 1 unpatentable, and a *prima facie* case of obviousness has not been established. The Applicant submits that claim 1 is allowable. Independent claim 9 is are similar in many respects to the device disclosed in independent claim 1. Therefore, the Applicant submits that independent claim 9 is also allowable over the references cited in the Office Action at least for the reasons stated above with regard to claim 1.

**B. Rejection of Dependent Claims 4-5 and 8**

Based on at least the foregoing, the Applicant believes the rejection of independent claims 1 and 9 under 35 U.S.C. § 103(a) as being unpatentable over

Neumann in view of Kransmo has been overcome and requests that the rejection be withdrawn. Additionally, claims 4-5 and 8 depend from independent claim 1 and are, consequently, also respectfully submitted to be allowable.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claims 1, 4-5 and 8.

**II. The Proposed Combination of Neumann, Kransmo and Schutte Does Not Render Claims 2, 10-15, and 17-19 Unpatentable**

The Applicant turns to the rejection of claims 2, 10-15, and 17-19 as being unpatentable over Neumann in view of Kransmo and Schutte.

**A. The Proposed Combination Does Not Teach or Suggest "generating within a multi-mode communication device, a timer capture interrupt during a predetermined timing phase of a first wireless communication system"**

With regard to the rejection of independent claim 15 under 103(a), the Applicant submits that the combination of Neumann and Kransmo does not disclose or suggest at least the limitation of "generating within a multi-mode communication device, a timer capture interrupt during a predetermined timing phase of a first wireless communication system, ..., determining a timing relationship between said first and second wireless communication systems based upon said timer value," as recited by the Applicant in independent claim 15.

The Office Action, at page 9, concedes the following:

Neumann does not specifically disclose a timer capture interrupt during a predetermined timing phase, storing a timer value of at least one time pertinent to operation of said second wireless communication system in response to timer capture interrupt, reading the timer value, and determining a timing relationship between first and second wireless communication systems based upon timer value.

The Examiner is then relying on Schutte and states the following:

Schutte discloses a timer capture interrupt during a predetermined timing phase, storing a timer value of at least one time. pertinent to operation of second communication system in response to timer capture interrupt and reading the timer value (col. 4, line 65 through col. 5, line 18, and col. 2, lines 7-32, "timer capture interrupt", "synchronizing", note that a timer capture interrupt signal is provided to alert the system controller read the event report and to determine the absolute time of the event).

See *id.* Initially, the Applicant points out that Schutte does not disclose or suggest a multi-mode communication device that communicates via a first and a second wireless communication protocol, as claimed by the Applicant in claim 15. Furthermore, after careful review of the above citations used by the Examiner (col. 4, line 65 through col. 5, line 18, and col. 2, lines 7-32), as well as the remainder of Schutte, the Applicant has been unable to identify where Schutte discloses the limitation of **"generating within a multi-mode communication device, a timer capture interrupt during a predetermined timing phase of a first wireless communication system, ..., and determining a timing relationship between**

**said first and second wireless communication systems based upon said timer value,"** as recited by the Applicant in independent claim 15.

For example, Schutte discloses, at col. 2, lines 7-32, that a microprocessor may use a clock to monitor data for a synchronizing word or sequence of bits. This does not relate in any way to generating a timer capture interrupt, storing a timer value based on the interrupt, and determining a timing relationship between a first and second wireless communication systems based on the timer value, as claimed by the Applicant in claim 15.

Similarly, Schutte discloses, at col. 4, line 65 - col. 5, line 18, discloses that an interrupt is provided "when an edge is detected and stores the value of the free running counter in a register so that the time of the edge can be determined when the interrupt is serviced." In this regard, this citation also does not support the above limitation of the Applicant's claim 15.

Accordingly, the proposed combination of Neumann, Kransmo and Schutte does not render independent claim 15 unpatentable, and a *prima facie* case of obviousness has not been established. The Applicant submits that claim 15 is allowable.

**B. Rejection of Dependent Claims 2, 10-14 and 17-19**

Based on at least the foregoing, the Applicant believes the rejection of independent claims 1, 9, and 15 under 35 U.S.C. § 103(a) has been overcome and requests that the rejection be withdrawn. Additionally, claims 2, 10-14 and 17-19 depend from independent claims 1, 9 and 15, respectively, and are, consequently, also respectfully submitted to be allowable.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claims 2, 10-15 and 17-19.

**C. Rejection of Dependent Claim 16**

Claim 16 depends from independent claim 15, and is, consequently, also respectfully submitted to be allowable at least for the reasons stated above.

Based on at least the foregoing, the Applicant believes the rejection of independent claim 16 under 35 U.S.C. § 103(a) as being unpatentable over Neumann in view of Kransmo, and further in view of Schutte and still further in view of Moretti has been overcome and requests that the rejection be withdrawn.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claims 16.

**III. Change of the Attorney Docket Number**

The Applicant respectfully requests that the Attorney Docket number be changed to 16106US02. The Applicant respectfully requests that such change be made effective immediately in the official USPTO record and in any subsequent communication from the USPTO.



**CONCLUSION**

Based on at least the foregoing, the Applicant believes that all claims 1-27 are in condition for allowance. If the Examiner disagrees, the Applicant respectfully requests a telephone interview, and request that the Examiner telephone the undersigned Attorney at (312) 775-8176.

The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to the deposit account of McAndrews, Held & Malloy, Ltd., Account No. 13-0017.

A Notice of Allowability is courteously solicited.

Respectfully submitted,



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